



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,766	02/06/2004	Jack Y. Peng	27140.013	8821
21907	7590	12/01/2005	EXAMINER	
ROZSA LAW GROUP LC 15910 VENTURA BOULEVARD SUITE 1601 ENCINO, CA 91436-2815			MAI, NGOCLAN THI	
			ART UNIT	PAPER NUMBER
			1742	

DATE MAILED: 12/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/774,766

Applicant(s)

PENG ET AL.

Examiner

Ngoclan T. Mai

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-9 are pending. Claims 1, 2, 6-9 are amended.

Response to Arguments

2. Applicant's arguments filed 9/14/05 have been fully considered but they are not persuasive. In the response, page 7 applicant points out the differences between the claimed invention and the teaching of Murakami et al. (PG PUB 2002/0021779) in sections 5.01 to 5.04; the arguments are not convincing for the following reasons:

In section 5.01 applicants argue that Murakami disclosure is for a neutron absorbing material for spent nuclear storage; whereas, the present invention is a nanocomposite that has strength and stiffness for producing an end product nanocomposite. The examiner disagrees in that the spent fuel storage material of Murakami does provide strength as evident by the increase in strength when alumina or aluminum oxide particles in nano-size are used, see para [0008], [0010], and Table 4, fifth column. As for the stiffness, Murakami teaches the neutron absorber is provided to block slipping in the crystal grain boundary and reinforce the material, the aluminum composite material as a spent fuel storage member would inherently have stiffness.

In section 5.02 applicants argue that the neutron absorbing material disclosed by the Murakami reference has only two starting materials, which are aluminum powder and neutron absorber powder. This is irrelevant because the claims are drawn to nanocomposite not a powder composition. Since the aluminum composite material taught by Murakami have all of the elements recited by the claims the aluminum composite material reads on the claimed nanocomposite regardless how it is made. Furthermore, Murakami does teach the third particles for increasing strength as evident by the teaching in para. [0008]-[0016] and particularly in the EXAMPLE, Tables 1, 3 and 4.

In section 5.03 applicants argue that the neutron absorbing material of the Murakami publication requires the use of mechanical alloying as a step in the manufacturing of the materials described in

Art Unit: 1742

the application. This is also irrelevant because the claims are drawn to nanocomposite, not the method of making. Thus the claimed nanocomposite, which have all of the elements as disclosed by the reference, is anticipated by the composite of the reference, regardless how it is made reference.

In section 5.04 applications argue that the application has at least one additional material as set forth in Claim 1 for the purpose of providing high strength which is unnecessary in the Murakami reference and that the modulus phase of the micro-sized ceramic particles is also not disclosed or made obvious by Murakami. The examiner must disagree because as discussed above, Murakami does require the third additional material as claimed to provide strength and employs neutron absorber such as B₄C powder having mean particle of 9 microns to form aluminum composite material, see para. [0081]. Since the B₄C (boron carbide) disclosed is the same as the modulus ceramic particle recited in claim 4 of the application and the amount used is within the claimed range from 1 to 20% by weight, see para [0040], the use of this compound would inherently provide stiffness as claimed.

3. For the reasons above the rejection of claims 1- 9 under 35 U.S.C. 102(b) as being anticipated by Murakami et al. US 2002/0021779A is maintained. The rejection was made in previous office action and is incorporated herein by reference.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing


Art Unit: 1742

date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoclan T. Mai whose telephone number is (571) 272-1246. The examiner can normally be reached on 9:30-6:00 PM Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Ngoclan T. Mai
Primary Examiner
Art Unit 1742

n.m.